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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/676,139	STEPHENS ET AL.	
	Examiner	Art Unit	
	IAN N. MOORE	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,6-11,13,15-22,24,26-30,32,34-41,43,45,46,48,50 and 51* is/are pending in the application.

4a) Of the above claim(s) *4,13,24,28,29,32,38,39,43 and 48* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,6-11,15,17-22,26,27,30,34,36,37,40,41,45,46 and 50* is/are rejected.

7)☒ Claim(s) *16,35,51* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on 1/24/2008 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent application No. 10/677,055 (U.S. Pub No. 2005/0068900) has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Objections

2. Claims 1, 2, 6-11, 15-20, 22, 26, 30, 34-37, 45 and 50 are objected to because of the following informalities:

Claim 1 recites "a method **comprising performing** within a single wireless communication device" in line 1. For clarification, it is suggested to change to "a method **<u>for</u> performing** within a single wireless communication device **<u>comprising</u>**".

Claim 11 is also objected for the same reason as set forth above in claim 1.

Claim 6 recites "wherein the second protocol data unit includes: a second header, and a second service data unit, following the second header". However, these limitations are already recited in claim 1. Thus, claim 6 is a duplicate of claim 1. For consistency and clarification with respect to claim 1, it is suggested to cancel claim 6.

Claim 34 recites "wherein the second protocol data unit includes: a second header, and a second service data unit, following the second header". However, these limitations are already recited in claim 30. Thus, claim 34 is a duplicate of claim 30. For consistency and clarification with respect to claim 30, it is suggested to cancel claim 34.

Claim 15 recites "wherein the second protocol data unit includes: a second header… and a second service data unit…at a third modulation rate ". However, these limitations are already recited in claim 11. Thus, claim 15 is a duplicate of claim 11. For consistency and clarification with respect to claim 11, it is suggested to cancel claim 15.

Claim 26 recites "wherein the second protocol data unit includes: a second header… and a second service data unit…at a third modulation rate ". However, these limitations are already recited in claim 22. Thus, claim 26 is a duplicate of claim 22. For consistency and clarification with respect to claim 22, it is suggested to cancel claim 26.

Claim 45 recites "wherein the second protocol data unit includes: a second header, and a second service data unit, following the second header". However, these limitations are already recited in claim 40. Thus, claim 45 is a duplicate of claim 40. For consistency and clarification with respect to claim 40, it is suggested to cancel claim 45.

Claim 50 recites "wherein the second protocol data unit includes: a second header… and a second service data unit…at a third modulation rate ". However, these limitations are already recited in claim 46. Thus, claim 50 is a duplicate of claim 46. For consistency and clarification with respect to claim 46, it is suggested to cancel claim 50.

Claim 30 recites "**approximately** at next symbol boundary" in line 10. Since the second protocol data unit is received "exactly" at a next symbol boundary, for consistency and clarification, it is suggested to remove "approximately".

Claim 22 is also objected for the same reason as set forth above in claim 30.

Claim 30 recites "**after an end of <u>transmitting</u> the first protocol data unit**" in line 7. For consistency and clarification with "an apparatus...receive a first protocol data unit over air

interface" recited in line 1-5, it is suggested to change to "**after an end of <u>receiving</u> the first protocol data unit**" since a first protocol data unit cannot be <u>both transmitting and receiving at the same time.</u>

Claims 2, 7-10, 16, 17-20, and 35-37 are also objected since they are depended upon objected claims 1, 11, and 30 as set forth above.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 6, 7, 8, 30, 34, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho (US 20030169769A1) in view of Fischer (US 20020089959A1).

Regarding claim 1, Ho discloses a method comprising performing within a single wireless communication device (see FIG. 5, a wireless LAN device 100, 102, or combined wireless LAN device 100-102 performing processes/method; see page 3, paragraph 36) comprising:

transmitting (see FIG. 1,3,6, first wireless station 10/110 transmitting; see page 1, paragraph 7-10; see page 3, paragraph 36) a first protocol data unit (see FIG. 2, 4, data frame 20; or FIG. 6, first MAC protocol data unit (MSDU) frame 20; see page 1, paragraph 9-10; page 3,

paragraph 38-41) over an air interface (see FIG. 1,3,6, over a wireless medium 112; see page 1, paragraph 7-10; see page 3, paragraph 36), wherein the first protocol data unit includes

a first preamble (see FIG. 2-4, a preamble 24 of first MSDU) to enable a receiver to synchronize (see FIG. 1-2, 5, preamble time/synchronize the receiving station 12/102; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53);

a first header (see FIG. 2-4, a header 26 of first MSDU), following the first preamble (see FIG. 2-4, a header 26 follows/next to the preamble 24; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53); and

a first service data unit (see FIG. 2-4, data 28 of first MSDU), following the first header (see FIG. 2-4, a data 28 follows/next to the header 26; see page 1, paragraph 8-10; see page 3, paragraph 38; page 5, paragraph 53); and

transmitting (see FIG. 1,3,6, first wireless station 10/110 transmitting; see page 1, paragraph 7-10; see page 3, paragraph 36) a second protocol data unit (see FIG. 2, 4, ack data frame 22; or FIG. 6, second MAC protocol data unit (MSDU) frame 20; see page 1, paragraph 9-10; page 3, paragraph 38-41) over the air interface (see FIG. 1,3,6, over a wireless medium 112; see page 1, paragraph 7-10; see page 3, paragraph 36);

the second protocol data unit includes (see FIG. 2, 4, 6, second MSDU):

a second preamble (see FIG. 2,4, preamble 30 of ACK data frame; or see FIG. 6, a second MSDU, note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; see page 3, paragraph 38; page 5, paragraph 53),

a second header (see FIG. 2-4, header 32; or see FIG. 6, a header 26 of second MSDU), following the second preamble (see FIG. 2-4, following preamble 30; or see FIG. 6, following a second header 26 follows/next to the second preamble 24; note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53); and

a second service data unit (see FIG. 2-4, data 34; or see FIG. 6, data 28 of second MSDU), following the second header (see FIG. 2-4, following header 32; or see FIG. 6, a data 28 follows/next to the second header 26; note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; see page 3, paragraph 38; page 5, paragraph 53).

Ho does not explicitly disclose "without an interframe space between the first protocol data unit and the second protocol data unit".

However, Fischer teaches a method compring performing within a single wireless communication device (see FIG. 1, wireless communication system 100) transmitting a first protocol data unit (see FIG. 1, transmitting a first frame; see page 4, paragraph 25-26; see page 20, paragraph 18) over an air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50), transmitting a second protocol data unit (see FIG. 1, transmitting a second frame; see page 5, paragraph 27; see page 20, paragraph 23) over the air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50) without an interframe space between the first protocol data unit and the second protocol data unit (see page 5, paragraph 27, 29-30; prior to expiration of interframe gap period after transmission of the first frame).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "without an interframe space between the first protocol data unit and the second protocol data unit" as taught by Fischer in the system of Ho, so that it would increase data throughput for selected application as suggested by Fischer; see page 5, paragraph 27.

Regarding claim 2, Ho discloses said transmitting the second protocol data unit beings in approximately at a next symbol boundary (see FIG. 6, transmitting second MSDU (e.g. a combined system of second frame preamble n, header n and subbody n) is at next/subsequent MSDU boundary/interval/slot) after an end of transmitting the first protocol data unit (see FIG. 6, after the first MSDU (e.g. combined system of second frame preamble 1, header 1 and subbody 1)); see page 1, paragraph 9-10; page 3, paragraph 38-42).

Regarding claim 6, Ho discloses the second protocol data unit includes (see FIG. 6, second MSDU):

a second header (see FIG. 2-4, header 32; or see FIG. 6, a header 26 of second MSDU), following the second preamble (see FIG. 2-4, following preamble 30; or see FIG. 6, following a second header 26 follows/next to the second preamble 24; note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53); and

a second service data unit (see FIG. 2-4, data 34; or see FIG. 6, data 28 of second MSDU), following the second header (see FIG. 2-4, following header 32; or see FIG. 6, a data 28 follows/next to the second header 26; note that FIG. 2-4 show a typical MSDU format and thus it

applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; see page 3, paragraph 38; page 5, paragraph 53).

Regarding Claim 7, Ho discloses the interframe space is a time period (see FIG. 2-4, IFS 35 a time period/interval between two frames; see page 1, paragraph 8-11) selected from a group of time periods consisting of including a short interframe space (see page 5, paragraph 53; short interface space, SIF). Fischer also discloses wherein the interframe space is a time period selected from a group of time periods consisting of including a short interframe space (see page 5, paragraph 27; see page 9, paragraph 68; inter-frame gap period/time is short inter-frame space period).

Regarding Claim 8, Ho discloses the header includes a physical device header (see FIG. 2-4, a header 26 is the header of the PHY device; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53).

Regarding claim 30, Ho discloses an apparatus (see FIG. 5, Station 100/102) comprising:

a medium access control device (see FIG. 5, MAC 106), which is operable to receive multiple data units from a physical device (see FIG. 5, MAC 106 receives MAC protocol data unit (MSDU) frames from PHY 108; see page 3, paragraph 36-38); and

the physical device (see FIG. 5, PHY 108), coupled to the medium access control device (see FIG. 5, PHY 108 couples/connects to MAC 106), the physical device to receive a first protocol data unit (see FIG. 2, 4, data frame 20; or see FIG. 6, receiving first MAC protocol data unit (MSDU) frame at the station 100/102; see page 3, paragraph 38-41) over an air interface

(see FIG. 1,3,6, over a wireless medium 112; see page 1, paragraph 7-10; see page 3, paragraph 36), wherein the first protocol data unit includes

a first preamble (see FIG. 2-4, a preamble 24 of first MSDU) to enable a receiver to synchronize (see FIG. 1-2, 5, preamble time/synchronize the receiving station 12/102; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53);

a first header (see FIG. 2-4, a header 26 of first MSDU), following the first preamble (see FIG. 2-4, a header 26 follows/next to the preamble 24; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53); and

a first service data unit (see FIG. 2-4, data 28 of first MSDU), following the first header (see FIG. 2-4, a data 28 follows/next to the header 26; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53); and

receive a second protocol data unit (see FIG. 2, 4, station 100/102 receiving ack data frame 22; or FIG. 6, station 100/102 receiving second MAC protocol data unit (MSDU) frame 20; see page 1, paragraph 9-10; page 3, paragraph 38-41) over the air interface (see FIG. 1,3,6, over a wireless network 90; see page 1, paragraph 7-10; see page 3, paragraph 36), wherein the second protocol data unit is to begin (see FIG. 6, second MSDU (e.g. a combined system of second frame preamble n, header n and subbody n) starts/beings) after an end of transmitting the first protocol data unit (see FIG. 6, after the first MSDU (e.g. combined system of second frame preamble 1, header 1 and subbody 1); see page 1, paragraph 9-10; page 3, paragraph 38-42);

wherein the second protocol data unit includes (see FIG. 2, 4; receiving ack data frame 22; or see FIG. 6, second MSDU):

a second preamble (see FIG. 2,4, preamble 30 of ACK data frame; or see FIG. 6, a second MSDU, note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; see page 3, paragraph 38; page 5, paragraph 53),

a second header (see FIG. 2-4, header 32; or see FIG. 6, a header 26 of second MSDU), following the second preamble (see FIG. 2-4, a second header 26 follows/next to the second preamble 24; note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53); and

a second service data unit (see FIG. 2-4, data 34; or see FIG. 6, data 28 of second MSDU), following the second header (see FIG. 2-4, a data 28 follows/next to the second header 26; note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; see page 3, paragraph 38; page 5, paragraph 53).

Ho does not explicitly disclose "in approximately at a next symbol boundary".

However, Fischer teaches an apparatus (see FIG. 1, wireless communication system 100) receiving a first protocol data unit (see FIG. 1, receiving a first frame; see page 4, paragraph 25-26; see page 20, paragraph 18; note that transceiver 103 has both transmit and receive capabilities) over an air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50), receiving a second protocol data unit (see FIG. 1, receiving a second frame; see page 5, paragraph 27; see page 20, paragraph 23) over the air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50), wherein the second protocol data unit is being in approximately

at a next symbol boundary after an end of transmitting the first protocol data unit (see page 5, paragraph 27, 29-30; second frame is received at next time period after the end of transmitting (from transmitter) a first frame, that is, prior to expiration of interframe gap period after transmission of the first frame).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "in approximately at a next symbol boundary" as taught by Fischer in the system of Ho, so that it would increase data throughput for selected application as suggested by Fischer; see page 5, paragraph 27.

Regarding claim 34, Ho discloses the second protocol data unit includes (see FIG. 6, second MSDU):

a second header (see FIG. 2-4, header 32; or see FIG. 6, a header 26 of second MSDU), following the second preamble (see FIG. 2-4, a second header 26 follows/next to the second preamble 24; note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53); and

a second service data unit (see FIG. 2-4, data 34; or see FIG. 6, data 28 of second MSDU), following the second header following the first header (see FIG. 2-4, a data 28 follows/next to the second header 26; note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; see page 3, paragraph 38; page 5, paragraph 53).

Regarding Claim 36, Ho discloses the interframe space is a time period (see FIG. 2-4, IFS 35 a time period/interval between two frames; see page 1, paragraph 8-11) selected from a

group of time periods consisting of including a short interframe space (see page 5, paragraph 53; short interface space, SIF). Fischer also discloses wherein the interframe space is a time period selected from a group of time periods consisting of including a short interframe space (see page 5, paragraph 27; see page 9, paragraph 68; inter-frame gap period/time is short inter-frame space period).

Regarding Claim 37, Ho discloses the header includes a physical device header (see FIG. 2-4, a header 26 is the header of the PHY device; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53).

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ho in view of Fischer, and further in view of Oura (US 20050073960A1).

Regarding Claim 9, neither Ho nor Fischer explicitly discloses "the first modulation rate is in a range of approximately 6 to 12 megabits per second".

However, having the modulation rate is in a range of approximately 6 to 12 megabits per second is well know and established in the art as IEEE 802.11. In particular, Oura teaches the first modulation rate is in a range of approximately 6 to 12 megabits per second (see FIG. 2, modulation rate BPSK with 6 Mbps; see page 1, paragraph 5-6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "the first modulation rate is in a range of approximately 6 to 12 megabits per second", as taught by Oura in the combined system of Ho and Fischer, so that it would provide precisely deciding the transfer rate for optimization; see Oura page 1, paragraph 7, 9; see page 2, paragraph 26-17.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ho in view of Fischer, and further in view of Boer (U.S. 5,706,428).

Regarding Claim 10, neither Ho nor Fischer explicitly discloses "the second modulation rate is in a range of approximately 6 to 240 megabits per second".

However, Boer teaches the second modulation rate is in a range of approximately 6 to 240 megabits per second (see col. 3, line 56-65; the modulation rate for data is 8 Mbps).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "the second modulation rate is in a range of approximately 6 to 240 megabits per second", as taught by Boer in the combined system of Ho and Fischer, so that it would enable communication between station operating at different data rates; see Boer col. 1, line 28-47.

7. Claims 11, 15, 17, 18, 20, 21, 22, 26, 27, 41, 46, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boer (US 5,706,428) in view of Fischer.

Regarding Claim 11, Boer discloses a method comprising performing within a single wireless device (see FIG. 2-3, a wireless LAN station 18/22 processing the steps/method) comprising:

receiving a first protocol data unit (see FIG. 4, data message) over an air interface (see FIG. 1-3, RF receiver 52/152 receiving data message over the wireless communication channel; see col. 2, line 5-20; see col. 3, line 1-40), wherein the first protocol data unit includes

a first preamble (see FIG. 4, preamble 216), to enable a receiver (see FIG. 1-3, RF receiver 52/152) to synchronize (see col. 3, paragraph 41-65; see col. 6, line 45 to col. 7, line 7; preamble times/synchronize the receiver 52/152 since preamble contains SYNC field 202), and which is received at a first modulation rate (see col. 3, line 55-60; preamble is received at 1 Mpbs using DBPSK modulation);

a first header (see FIG. 4, header 21), following the first preamble (see FIG. 4, header 218 follows preamble 216), which is received at the first modulation rate (see col. 3, line 55-60; header is received at 1 Mpbs using DBPSK modulation); and

the first service data unit (see FIG. 4, Data 214), following the first header (see FIG. 4, data 214 follows header 218), which is received at a second modulation rate (see col. 3, line 55-65; abstract; data is received at 8 Mbps rates using PPM/DQPSK);

receiving a second protocol data unit over the air interface (see FIG. 1-3, RF receiver 52/152 receiving subsequent/next/second data message over the wireless communication channel ; note that more than one data message are transmitted and received; see col. 2, line 5-25; see col. 3, line 1-40);

the second protocol data unit (note that more than one data message are transmitted and received; see col. 2, line 5-25) includes:

a second preamble (see FIG. 4, preamble 216 of next/subsequent message), which is received at the first modulation rate (see col. 3, line 55-60; preamble is received at 1 Mpbs using DBPSK modulation);

a second header (see FIG. 4, header 21 of next/subsequent message), following the second preamble (see FIG. 4, header 218 follows preamble 216 of next/subsequent message),

which is received at the third modulation rate (see col. 3, line 55-60; header is received at 1 Mbps using DBPSK modulation).

a second service data unit (see FIG. 4, Data 214 of next/subsequent message), following the first header (see FIG. 4, data 214 follows header 218 of next/subsequent message), which is received at a third modulation rate (see col. 3, line 55-65; abstract; data is received at 2 Mbps rates using PPM/DQPSK).

Boer does not explicitly disclose “before expiration of an interframe space”.

However, Fischer teaches a method comprising performing within a single wireless communication device (see FIG. 1, wireless communication system 100) receiving a first protocol data unit (see FIG. 1, receiving a first frame; see page 4, paragraph 25-26; see page 20, paragraph 18; note that transceiver 103 has both transmit and receive capabilities) over an air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50), receiving a second protocol data unit (see FIG. 1, receiving a second frame; see page 5, paragraph 27; see page 20, paragraph 23) over the air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50) before expiration of an interfame space (see page 5, paragraph 27, 29-30; prior to expiration of interframe gap period after transmission of the first frame).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide “before expiration of an interframe space” as taught by Fischer in the system of Ho, so that it would increase data throughput for selected application as suggested by Fischer; see page 5, paragraph 27.

Regarding claim 15, Boer discloses the second protocol data unit (note that more than one data message are transmitted and received; see col. 2, line 5-25) includes:

a second header (see FIG. 4, header 21 of next/subsequent message), following the second preamble (see FIG. 4, header 218 follows preamble 216 of next/subsequent message), which is received at the third modulation rate (see col. 3, line 55-60; header is received at 1 Mbps using DBPSK modulation).

a second service data unit (see FIG. 4, Data 214 of next/subsequent message), following the first header (see FIG. 4, data 214 follows header 218 of next/subsequent message), which is received at a third modulation rate (see col. 3, line 55-65; abstract; data is received at 2 Mbps rates using PPM/DQPSK).

Regarding Claim 17, Boer discloses interframe space is a time period selected from a group of time periods consisting of including a short interframe space (see col. 4, line 30-35; interframe spacing time is a short interframe spacing time). Fischer also discloses wherein the interframe space is a time period selected from a group of time periods consisting of including a short interframe space (see page 5, paragraph 27; see page 9, paragraph 68; inter-frame gap period/time is short inter-frame space period).

Regarding Claim 18, Boer discloses the header includes a physical device header (see col. 3, line 40-55; header 218 is the header for a combined physical device header).

Regarding Claim 20, Boer teaches the second modulation rate is in a range of approximately 6 to 240 megabits per second (see col. 3, line 56-65; the modulation rate for data is 8 Mbps).

Regarding Claim 21, Boer discloses an apparatus (see FIG. 2-3, a wireless LAN station 18/22) comprising:

a medium access control device (see FIG. 2-3, MAC control 30/130), which is operable to provide multiple data units (see FIG. 2-3, transmitting data messages) destined for at least one receiver (see FIG. 2-3, for RF receiver 52/152) to a physical device (see FIG. 2-3, to a combined system of physical unit RF transmitter 50/150, spreader 48/148 and encoder 48/146 for transmission); see col. 2, line 63 to col. 3, line 40); and

the physical device, coupled to the medium access control device (see FIG. 2-3, a combined system of physical device is connected with MAC 30/130), which is to transmit a first protocol data unit (see FIG. 4, transmitting data message) over an air interface (see FIG. 1-3, RF transmitting 50/150 transmit data message over the wireless communication channel; see col. 2, line 5-20; see col. 3, line 1-40), wherein the first protocol data unit includes

a first preamble (see FIG. 4, preamble 216), to enable a receiver (see FIG. 1-3, RF receiver 52/152) to synchronize (see col. 3, paragraph 41-65; see col. 6, line 45 to col. 7, line 7; preamble times/synchronize the transmitter 50/150 since preamble contains SYNC field 202), and which the physical device is to transmit at a first modulation rate (see col. 3, line 55-60; preamble is transmit at 1 Mpbs using DBPSK modulation);

a first header (see FIG. 4, header 21), following the first preamble (see FIG. 4, header 218 follows preamble 216), which the physical device is to transmit at the first modulation rate (see col. 3, line 55-60; header is transmitted by the combined physical unit at 1 Mpbs using DBPSK modulation); and

the first service data unit (see FIG. 4, Data 214), following the first header (see FIG. 4, data 214 follows header 218), which the physical device is to transmit at a second modulation

rate (see col. 3, line 55-65; abstract; data is transmitted by the combined physical unit at 1/2/5/8 Mbps rates using PPM/DQPSK);

transmit a second protocol data unit over the air interface (see FIG. 1-3, RF transmitter 50/150 transmits subsequent/next/second data message over the wireless communication channel ; note more than one data message are transmitted and received; see col. 2, line 5-25; see col. 3, line 1-40);

the second protocol data unit (note that more than one data message are transmitted and received; see col. 2, line 5-25) includes:

a second preamble (see FIG. 4, preamble 216 of next/subsequent message), which the physical device is to transmit at the first modulation rate (see col. 3, line 55-60; preamble is transmits by the combined physical unit at 1 Mpbs using DBPSK modulation);

a second header (see FIG. 4, header 21 of next/subsequent message), following the second preamble (see FIG. 4, header 218 follows preamble 216 of next/subsequent message), wherein the physical device is to transmit at the third modulation rate (see col. 3, line 55-60; header is transmitted by the combined physical unit at 1 Mbps using DBPSK modulation).

a second service data unit (see FIG. 4, Data 214 of next/subsequent message), following the first header (see FIG. 4, data 214 follows header 218 of next/subsequent message), which the physical device is to transmit at a third modulation rate (see col. 3, line 55-65; abstract; data is transmitted by a combined system of physical unit at 2 Mbps rates using PPM/DQPSK).

Boer does not explicitly disclose "without an interframe space between the first protocol data unit and the second protocol data unit".

However, Fischer teaches a method comprising performing within a single wireless communication device (see FIG. 1, wireless communication system 100) transmit a first protocol data unit (see FIG. 1, transmit a first frame; see page 4, paragraph 25-26; see page 20, paragraph 18; note that transceiver 103 has both transmit and receive capabilities) over an air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50), transmit a second protocol data unit (see FIG. 1, transmit a second frame; see page 5, paragraph 27; see page 20, paragraph 23) over the air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50; see page 5, paragraph 27, 29-30; prior to expiration of interframe gap period after transmission of the first frame (i.e. transmitting without a inter-frame gap period)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "without an interframe space between the first protocol data unit and the second protocol data unit" as taught by Fischer in the system of Boer, so that it would increase data throughput for selected application as suggested by Fischer; see page 5, paragraph 27.

Regarding claim 22, Boer discloses the physical device (see FIG. 2-3, to a combined system of physical unit RF transmitter 50/150, spreader 48/148 and encoder 48/146 for transmission); see col. 2, line 63 to col. 3, line 40) is further operable to transmit the second protocol unit (see FIG. 1-3, the combined physical unit transmits subsequent/next/second data message over the wireless communication channel; note more than one data message are transmitted and received; see col. 2, line 5-25; see col. 3, line 1-40).

Boer does not explicitly disclose "beings in approximately at a next symbol boundary after an end of transmitting the first protocol data unit".

However, Fischer teaches transmit the second protocol data unit is being in approximately at a next symbol boundary after an end of transmitting the first protocol data unit (see page 5, paragraph 27, 29-30; second frame is received at next time period after the end of transmitting (from transmitter) a first frame, that is, prior to expiration of interframe gap period after transmission of the first frame).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "in approximately at a next symbol boundary" as taught by Fischer in the system of Boer, so that it would increase data throughput for selected application as suggested by Fischer; see page 5, paragraph 27.

Regarding claim 26, Boer discloses the second protocol data unit (note that more than one data message are transmitted and received; see col. 2, line 5-25) includes:

a second header (see FIG. 4, header 21 of next/subsequent message), following the second preamble (see FIG. 4, header 218 follows preamble 216 of next/subsequent message), wherein the physical device is to transmit at the third modulation rate (see col. 3, line 55-60; header is transmitted by the combined physical unit at 1 Mbps using DBPSK modulation).

a second service data unit (see FIG. 4, Data 214 of next/subsequent message), following the first header (see FIG. 4, data 214 follows header 218 of next/subsequent message), which the physical device is to transmit at a third modulation rate (see col. 3, line 55-65; abstract; data is transmitted by a combined system of physical unit at 2 Mbps rates using PPM/DQPSK).

Regarding Claim 27, Boer discloses interframe space is a time period selected from a group of time periods consisting of including a short interframe space (see col. 4, line 30-35; interframe spacing time is a short interframe spacing time). Fischer also discloses wherein the

interframe space is a time period selected from a group of time periods consisting of including a short interframe space (see page 5, paragraph 27; see page 9, paragraph 68; inter-frame gap period/time is short inter-frame space period).

Regarding Claim 46, Boer discloses a computer-readable medium (see FIG. 2-3, management state machine stores the data in the table, M-MST 34)) having program instructions stored thereon to perform a method (see col. 1, line 10-15; see col. 4, line 62-67; see col. 5, line 10-15; see col. 6, line 10-15, 45-50; see col. 7, line 10-16; storing the data to excluded in method flow), which when executed within a wireless local area network device (see FIG. 2-3, a wireless LAN station 18/22), result in:

receiving a first protocol data unit (see FIG. 4, data message) over an air interface (see FIG. 1-3, RF receiver 52/152 receiving data message over the wireless communication channel; see col. 2, line 5-20; see col. 3, line 1-40), wherein the first protocol data unit includes

a first preamble (see FIG. 4, preamble 216), to enable a receiver (see FIG. 1-3, RF receiver 52/152) to synchronize (see col. 3, paragraph 41-65; see col. 6, line 45 to col. 7, line 7; preamble times/synchronize the receiver 52/152 since preamble contains SYNC field 202), and which is received at a first modulation rate (see col. 3, line 55-60; preamble is received at 1 Mpbs using DBPSK modulation);

a first header (see FIG. 4, header 21), following the first preamble (see FIG. 4, header 218 follows preamble 216), which is received at the first modulation rate (see col. 3, line 55-60; header is received at 1 Mpbs using DBPSK modulation); and

the first service data unit (see FIG. 4, Data 214), following the first header (see FIG. 4, data 214 follows header 218), which is received at a second modulation rate (see col. 3, line 55-65; abstract; data is received at 1/2/5/8 Mbps rates using PPM/DQPSK);

receiving a second protocol data unit over the air interface (see FIG. 1-3, RF receiver 52/152 receiving subsequent/next/second data message over the wireless communication channel; note more than one data message are transmitted and received; see col. 2, line 5-25; see col. 3, line 1-40);

the second protocol data unit (note that more than one data message are transmitted and received; see col. 2, line 5-25) includes:

a second preamble (see FIG. 4, preamble 216 of next/subsequent message), which is received at the first modulation rate (see col. 3, line 55-60; preamble is received at 1 Mpbs using DBPSK modulation);

a second header (see FIG. 4, header 21 of next/subsequent message), following the second preamble (see FIG. 4, header 218 follows preamble 216 of next/subsequent message), which is received at the third modulation rate (see col. 3, line 55-60; header is received at 1 Mbps using DBPSK modulation).

a second service data unit (see FIG. 4, Data 214 of next/subsequent message), following the first header (see FIG. 4, data 214 follows header 218 of next/subsequent message), which is received at a third modulation rate (see col. 3, line 55-65; abstract; data is received at 2 Mbps rates using PPM/DQPSK).

Boer does not explicitly disclose “before expiration of an interframe between the first protocol data unit and the second protocol data unit”.

Boer does not explicitly disclose “without an interframe space between the first protocol data unit and the second protocol data unit”.

However, Fischer teaches performing within a single wireless communication device (see FIG. 1, wireless communication system 100) receiving a first protocol data unit (see FIG. 1, receiving a first frame; see page 4, paragraph 25-26; see page 20, paragraph 18; note that transceiver 103 has both transmit and receive capabilities) over an air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50), receiving a second protocol data unit (see FIG. 1, receiving a second frame; see page 5, paragraph 27; see page 20, paragraph 23) over the air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50; see page 5, paragraph 27, 29-30; prior to expiration of interframe gap period after transmission of the first frame (i.e. transmitting without a inter-frame gap period)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide “without an interframe space between the first protocol data unit and the second protocol data unit” as taught by Fischer in the system of Boer, so that it would increase data throughput for selected application as suggested by Fischer; see page 5, paragraph 27.

Regarding claim 41, Boer discloses said receiving the second protocol data unit after an end of the first protocol data unit (see FIG. 1, 3, the combined physical unit receives subsequent/next/second data message over the wireless communication channel after receiving the first data message; note that more than one data message are transmitted and received; see col. 2, line 5-25; see col. 3, line 1-40).

Boer does not explicitly disclose “in approximately at a next symbol boundary”.

However, Fischer teaches receiving a first protocol data unit (see FIG. 1, transmitting a first frame; see page 4, paragraph 25-26; see page 20, paragraph 18; note that transceiver 103 has both transmit and receive capabilities) over an air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50), receiving a second protocol data unit (see FIG. 1, receiving a second frame; see page 5, paragraph 27; see page 20, paragraph 23) over the air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50), wherein the second protocol data unit is being in approximately at a next symbol boundary after an end of said receiving the first protocol data unit (see page 5, paragraph 27, 29-30; second frame is received at next time period after the end of transmitting (from transmitter) a first frame, that is, prior to expiration of interframe gap period after transmission of the first frame).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "in approximately at a next symbol boundary" as taught by Fischer in the system of Boer, so that it would increase data throughput for selected application as suggested by Fischer; see page 5, paragraph 27.

Regarding claim 50, Boer discloses the second protocol data unit (note that more than one data message are transmitted and received; see col. 2, line 5-25) includes:

a second header (see FIG. 4, header 21 of next/subsequent message), following the second preamble (see FIG. 4, header 218 follows preamble 216 of next/subsequent message), which is received at the third modulation rate (see col. 3, line 55-60; header is received at 1 Mbps using DBPSK modulation).

a second service data unit (see FIG. 4, Data 214 of next/subsequent message), following the first header (see FIG. 4, data 214 follows header 218 of next/subsequent message), which is

received at a third modulation rate (see col. 3, line 55-65; abstract; data is received at 2 Mbps rates using PPM/DQPSK).

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boer and Fischer, and further in view of Oura (US 20050073960A1).

Regarding Claim 19, Boer discloses the first modulation rate is 1 megabits per second (see col. 3, line 55-60).

Neither Boer nor Fischer explicitly discloses a range of approximately 6 to 12 megabits per second.

However, having the modulation rate is in a range of approximately 6 to 12 megabits per second is well know and established in the art as IEEE 802.11. In particular, Oura teaches the first modulation rate is in a range of approximately 6 to 12 megabits per second (see FIG. 2, modulation rate BPSK with 6 Mbps; see page 1, paragraph 5-6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the first modulation rate is in a range of approximately 6 to 12 megabits per second, as taught by Oura in the combined system of Boer and Fischer, so that it would provide precisely deciding the transfer rate for optimization; see Oura page 1, paragraph 7, 9; see page 2, paragraph 26-17.

9. Claims 40 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho in view of Fischer and Lu (US006694134B1).

Regarding claim 40, Ho discloses perform a method, which when executed within a wireless local area network device (see FIG. 5, a pair of wireless device 100 and 102 (e.g. access points 140 (see FIG. 7), or station 142 (see FIG. 7) such as PDA, computer) performing processes/method; see page 3, paragraph 36), result in:

transmitting (see FIG. 1,3,6, first wireless station 10/110 transmitting; see page 1, paragraph 7-10; see page 3, paragraph 36) a first protocol data unit (see FIG. 2, 4, data frame 20; or FIG. 6, first MAC protocol data unit (MSDU) frame 20; see page 1, paragraph 9-10; page 3, paragraph 38-41) over an air interface (see FIG. 1,3,6, over a wireless medium 112; see page 1, paragraph 7-10; see page 3, paragraph 36), wherein the first protocol data unit includes

a first preamble (see FIG. 2-4, a preamble 24 of first MSDU) to enable a receiver to synchronize (see FIG. 1-2, 5, preamble time/synchronize the receiving station 12/102; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53);

a first header (see FIG. 2-4, a header 26 of first MSDU), following the first preamble (see FIG. 2-4, a header 26 follows/next to the preamble 24; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53); and

a first service data unit (see FIG. 2-4, data 28 of first MSDU), following the first header (see FIG. 2-4, a data 28 follows/next to the header 26; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53); and

transmitting (see FIG. 1,3,6, first wireless station 10/110 transmitting; see page 1, paragraph 7-10; see page 3, paragraph 36) a second protocol data unit (see FIG. 2, 4, ack data frame 22; or FIG. 6, second MAC protocol data unit (MSDU) frame 20; see page 1, paragraph 9-10; page 3, paragraph 38-41) over the air interface (see FIG. 1,3,6, over a wireless medium 112;

see page 1, paragraph 7-10; see page 3, paragraph 36), the second protocol data unit to begin after an end of the first protocol data unit (see FIG. 6, second MSDU (e.g. a combined system of second frame preamble n, header n and subbody n) is transmitted after an end of transmitting the first protocol data unit (see FIG. 6, after the first MSDU (e.g. combined system of second frame preamble 1, header 1 and subbody 1)); see page 1, paragraph 9-10; page 3, paragraph 38-42);

the second protocol data unit includes (see FIG. 6, second MSDU):

a second preamble (see FIG. 2,4, preamble 30 of ACK data frame; or see FIG. 6, a second MSDU, note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; see page 3, paragraph 38; page 5, paragraph 53),

a second header (see FIG. 2-4, header 32; or see FIG. 6, a header 26 of second MSDU), following the second preamble (see FIG. 2-4, a second header 26 follows/next to the second preamble 24; note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53); and

a second service data unit (see FIG. 2-4, data 34; or see FIG. 6, data 28 of second MSDU)), following the second header following the first header (see FIG. 2-4, a data 28 follows/next to the second header 26; note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; see page 3, paragraph 38; page 5, paragraph 53). a second preamble (see FIG. 2,4, preamble 30 of ACK data frame; or see FIG. 6, a second MSDU, note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame

including a second MSDU; see page 1, paragraph 8-10; see page 3, paragraph 38; page 5, paragraph 53).

Ho does not explicitly disclose "in approximately at a next symbol boundary".

However, Fischer teaches transmitting a first protocol data unit (see FIG. 1, transmitting a first frame; see page 4, paragraph 25-26; see page 20, paragraph 18; note that transceiver 103 has both transmit and receive capabilities) over an air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50), transmitting a second protocol data unit (see FIG. 1, transmitting a second frame; see page 5, paragraph 27; see page 20, paragraph 23) over the air interface (see FIG. 1, via wireless medium 106; see page 6, paragraph 50), wherein the second protocol data unit is being in approximately at a next symbol boundary after an end of the first protocol data unit (see page 5, paragraph 27, 29-30; second frame is transmitted at next time period after the end of transmitting a first frame, that is, prior to expiration of interframe gap period after transmission of the first frame).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide "in approximately at a next symbol boundary" as taught by Fischer in the system of Ho, so that it would increase data throughput for selected application as suggested by Fischer; see page 5, paragraph 27.

Neither Ho nor Fischer explicitly discloses "a computer-readable medium having program instructions stored thereon to".

However, a wireless LAN device comprising a computer-readable medium having program instructions stored thereon to so well known in the art. In particular, Lu teaches a wireless LAN node comprising a computer-readable medium having program instructions (see

col. 2, line 40-65; col. 6, line 35-52; see col. 7, line 50-60; wireless LAN device having a computer readable medium storing the computer programs).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a computer-readable medium having program instructions stored thereon to, as taught by Lu the combined system of Ho and Fischer, so that it would perform method steps; Lu see col. 2, line 56-65. Also, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide memory or storage medium taught by Lu since memory or storage medium is required in order to execute or perform the method(s) of the combined system of Ho and Fischer.

Regarding claim 45, Ho discloses the second protocol data unit includes (see FIG. 6, second MSDU):

a second header (see FIG. 2-4, a header 26 of second MSDU), following the second preamble (see FIG. 2-4, a second header 26 follows/next to the second preamble 24; note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; page 3, paragraph 38; page 5, paragraph 53); and

a second service data unit (see FIG. 2-4, data 28 of second MSDU), following the second header following the first header (see FIG. 2-4, a data 28 follows/next to the second header 26; note that FIG. 2-4 show a typical MSDU format and thus it applies to each and every MSDU in the aggregated frame including a second MSDU; see page 1, paragraph 8-10; see page 3, paragraph 38; page 5, paragraph 53).

Allowable Subject Matter

10. **Claim 16 and 35** are objected to as set forth in paragraph 2 and as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. **Claim 51** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

12. Applicant's arguments with respect to claims 1-2, 6-11, 15, 17-22, 26, 27, 30,34,36,37, 40,41,45,46 and 50 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 1, 11, 21, 30, 40 and 46, the applicant argued that, "...the claimed operation all take places within a single device...Ho are not applicable to applicant's claims, as they only show a high-level view of two-way communication between two devices in a network..." in page 14.

In response to applicant's argument, the examiner respectfully disagrees with the argument above.

In response to applicant's arguments, the recitation "***the claimed operation all takes places within a single device***" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or

structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Even if they were given patentable weight, the combined system of Ho and Fischer, and the combined system of Boer and Fischer would still disclose them as set forth above since each apparatus/system recited in the combined system is able to communication in two directions (i.e. transmitting and receiving).

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to IAN N. MOORE whose telephone number is (571)272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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